Clean Copy of All Pending Claims

39. (New) A tissue spectroscopy device comprising:

a spectrometer comprising a distal end, said distal end comprising a light emitting portion providing ultraviolet (UV) light and a light detector; and

an interventional device for delivering said spectrometer to a tissue.

40. (New) The device of claim 39 further comprising a filter associated with said light detector, filtering at least a portion of light received by said detector.

41. (New) The device of claim 40 wherein said filter is a bandpass filter centered around 380 nm.

42. (New) The device of claim 40 wherein said light detector comprises a first channel and a second channel and wherein said filter is disposed on said first channel.

43. (New) The device of claim 39 wherein said light emitting portion comprises a light source.

44. (New) The device of claim 43 wherein said light emitting portion further comprises a lens.

45. (New) The device of claim 43 wherein said light emitting portion further comprises a filter, said filter permitting light output at the UV range.

46. (New) The device of claim 39 wherein said distal end further comprises a substrate, said light emitting portion and said light detector both disposed on a first surface of said substrate.

47. (New) The device of claim 46 wherein said spectrometer further comprises a heat sink disposed on a second surface of said substrate opposite said first surface.

48. (New) The device of claim 46 wherein said spectrometer further comprises a light modulator disposed on said first surface of said substrate, a mirror disposed on said light modulator at an angle to receive light emitted by said light source, and an etched gap between said light modulator and said light source.

49. (New) The device of claim 46 wherein said substrate comprises doped silicon.

50. (New) The device of claim 39 wherein said light detector comprises an avalanche photodiode array.

51. (New) The device of claim 39 wherein said distal end further comprises a substantially transparent window.

52. (New) The device of claim 51 wherein said window comprises a material selected from a group consisting of polystyrene, polycarbonate, and methyl-methacrylate.

53. (New) The device of claim 39 wherein said spectrometer further comprises an optical device selected from the group consisting of a lens, a filter, a mirror, a frequency multiplier, a binary optical step, a grating, and a hologram.

54. (New) The device of claim 53 wherein said filter is serrated.

55. (New) A method for characterizing a tissue, said method comprising the steps of:

(a) providing a spectrometer comprising a distal end, said distal end comprising a light emitting portion and a light detector;

(b) use an interventional device to deliver said spectrometer to a tissue;

(c) connecting said spectrometer to a power source;

(d) generating ultraviolet (UV) light through said light emitting portion to illuminate said tissue; and

(e) using said light detector to measure an optical property of light from illuminated tissue.

56. (New) The method of claim 55, wherein step (e) comprises using a filter to filter at least a portion of light received by said detector.

57. (New) The method of claim 56, wherein said light detector comprises a first channel and a second channel and wherein said filter is disposed on said first channel.

58. (New) The method of claim 55 wherein the light emitting portion comprises a light source and a filter, and said step (d) comprises using said filter to filter the light from said light source such that the light output is in the UV range.